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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,703	04/16/2007	Rune Toennessen	14 0234-PCT-US	6116
WesternGeco Intellectual Property Department P O Box 2469 Houston, TX 77252-2469				
7590 02/28/2008			EXAMINER AVILA, STEPHEN P	
			ART UNIT 3617	PAPER NUMBER
			MAIL DATE 02/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/550,703

**Applicant(s)**

TOENNESSEN ET AL.

**Examiner**

Stephen Avila

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-70 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-70 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 27 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 011607.012207.092705  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 13-18, 21, 25-31, 34-44, 46, 49-55, and 57-70 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chiles et al. Chiles et al disclose the claimed structure including a system with a generally upright deflector body 40 with a tilt angle relative to vertical; and at least one bridle connected to a seismic cable 26, the bridle including an upper segment secured to an upper connection point on the deflector body, and a lower segment coupled to a lower connection point on the deflector body, wherein the upper segment, lower segment and deflector body define a geometry there between; and at least one actuator 82 for adjusting the geometry to control the tilt angle of the deflector body. Note that Chiles et al also disclose an additional actuator 118, a weight 88, pulley and a remote control.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12, 24 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al in view of Lasky et al. Not disclosed by Chiles et al is a separate buoyancy. Lasky et al disclose a buoyancy element 62. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the device

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of Chiles et al with a buoyancy element as taught by Lasky et al for improved deflector control. The combination combines known features to achieve predictable results.

5. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al in view of Ambs. Not clearly disclosed by Chiles et al is a steamer or lead in. Ambs discloses a steamer and lead in (note column 4, lines 7-19). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the device of Chiles et al with a steamer or lead in as taught by Ambs for improved deflector control. The combination combines known features to achieve predictable results.

6. Claims 22, 23, 32, 33, 47, 48 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al in view of Vatne et al. Not disclosed by Chiles et al is a separate floatation device. Vatne et al disclose a floatation device 1. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the device of Chiles et al with a floatation device as taught by Vatne et al for improved deflector control. The combination combines known features to achieve predictable results.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kelly shows a paravane.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Avila whose telephone number is 571-272-6678. The examiner can normally be reached on Monday to Thursday from 7 AM to 3 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen Avila  
Primary Examiner  
Art Unit 3617

/Stephen Avila/  
Primary Examiner, Art Unit 3617